

DEPARTMENT OF ENERGY

Identification Number: DE-RF01-05PI99999

Office of Policy and International; U.S. Technologies and Services Package for 2008 Olympic Village

AGENCY: Office of Policy and International, Department of Energy.

ACTION: Request for Information/Expressions of Interest

SUMMARY: On Jan. 12, 2004, the U.S. Secretary of Energy, the China Ministry of Science and Technology and the City of Beijing entered into a protocol to collaborate on the use of clean energy technologies in the 2008 Beijing Olympic Games, entitled "Protocol for Cooperation in Clean Energy Technologies for the 2008 Summer Olympic Games in Beijing" (see https://ostiweb.osti.gov/iaem/country-frame_bi.html). Several joint working groups were created to implement the protocol, including a Green Building Working Group (GBWG) focused on the use of sustainable technologies and practices in the Olympic Village.

The designers and developers of the Olympic Village have expressed strong interest in producing a model development that will be among the first in the world to achieve a Gold Rating under the Leadership in Energy and Environmental Design – Neighborhood Developments (LEED-ND), a new rating system being created by the U.S. Green Building Council and others to facilitate the development of sustainable communities.

Working with the designers and developers of the Olympic Village, the GBWG has identified a number of opportunities for the private sector, non-government organizations and academic institutions to help the Olympic Village achieve this goal. The U.S. Department of Energy (DOE) believes that an integrated technology, services and know-how package can be assembled that would significantly enhance the Olympic Village's ability to achieve a LEED-ND rating in six key areas:

1. Site Planning;
2. Water Conservation Products and Processes;
3. Energy Efficiency and Renewable Energy Technologies and Practices;
4. Indoor Air Quality Management Technologies and Products;
5. Material Recycling and Solid Waste Management Systems;
6. Innovative Professional Education and Training Initiatives.

The U.S. DOE now intends to work with the private sector, non-government organizations and academic institutions to form a comprehensive technology, services and know-how package for submission to the Beijing Organizing Committee for the Games of the XXXIX Olympiad (BOCOG) responsible for the Olympic Village. This package will include offers of products, services, technical assistance, consultation, education and training.

The U.S. DOE anticipates that this package may provide an opportunity for participating U.S. companies, non-government organizations and academic institutions to demonstrate their products and services in the China market and to develop relationships that will be beneficial beyond the 2008 Olympic Games.

The U.S. DOE invites expressions of interest from the private sector, non-government organizations, and academic institutions wishing to participate in the development of this package. The Chinese members of the GBWG are interested in product and service donations, price discounts and other concessions that will help make US products and services competitive with offers from other nations. Once a comprehensive package is developed and submitted to the Chinese GBWG, the selection process will take place.

Products:

1. CHP system for National Convention Center
2. High-efficiency chillers for wastewater heat pump system
3. High-efficiency windows for residential high-rises
4. High-efficiency lighting fixtures, including T-8 fluorescents with electronic ballasts in underground garage
5. Recycled/recyclable carpeting
6. PV-powered outdoor lighting fixtures
7. Building-integrated photovoltaics
8. Shading devices to optimize passive solar performance
9. Ventilation and daylighting systems for underground garage
10. Noise mitigation technology/procedures to reduce traffic noise adjacent to village
11. Water-saving toilets, urinals and fixtures
12. High-efficiency pump and motor systems throughout the development (i.e., in wastewater heat pump system, mechanical ventilation of underground garages, rainwater consumption system, constructed wetland, etc.)
13. Modular chillers to be removed after Games.
14. Automatic lighting controls for underground garage
15. LED signage within buildings
16. Wind turbines/towers for Mongolia wind farm
17. Hybrid ventilation equipment for underground garage
18. Alternative water-heating equipment (solar thermal, tankless heaters)
19. Concrete recycling
20. Municipal solid waste combustion technology
21. Bio-foam building insulation
22. Low VOC paints
23. Low VOC sealants/solvents/adhesives
24. Low VOC carpet
25. Radiant heating/fan coil cooling units
26. Rooftop gardening liners/materials
27. Water-conserving landscape irrigation equipment
28. Permeable road surface materials

Development projects:

1. Construction/demolition of temporary buildings on Olympic Village site, with greater than 80% recyclability
2. Construction of engineered wetlands in Village
3. Rainwater collection, storage and distribution system
4. Construction of traffic noise mitigation system
5. Design and construction of a zero-energy building within the Olympic Village (a building that produces as much or more energy than it consumes.)

Analyses:

1. Improving the efficiency of the entire wastewater heat pump system.
2. Optimizing energy efficiency of residential buildings, including passive solar performance.
3. Assessing life-cycle cost of CHP system at National Convention Center
4. Conducting a whole-building simulation of at least one residential high-rise
5. Evaluating optimal motor and pump system sizing appropriate to tasks
6. Recommending optimal hot water temperature to maximize efficiency of the chillers and overall wastewater heat pump system
7. Quantifying the impact of using direct wastewater versus indirect wastewater on cost and efficiency of chillers in wastewater heat pump system

Other services:

1. Commissioning of residential high-rise buildings and systems
2. Designing communications/interpretation materials to educate media, public and potential buyers about green features and their benefits
3. Helping to identify/facilitate markets for construction wastes, deconstruction wastes and recycled household wastes
4. Site preparation
5. Consultation on green construction techniques (dust mitigation, minimum waste, acceptable noise levels, etc.)

GUIDELINES FOR EXPRESSIONS OF INTEREST: Only private companies, non-government organizations, and academic institutions registered and doing business in the United States are qualified to respond to this notice. Interested companies, non-government organizations and academic institutions should notify DOE of their specific areas of interest at the email or postal address below, along with the name, address, telephone number and email address of a point of contact. Please include a one page statement describing your qualifications. Companies that express interest should anticipate a follow-up request from DOE to quickly provide further information needed to develop the technology, services and know-how package.

DATES: Expressions of interest should be submitted to the attention of Christopher Bordeaux at the e-mail or FAX provided below **by July 22, 2005.**

FOR FURTHER INFORMATION CONTACT: Christopher Bordeaux, Office of International and Policy, (1000 Independence Avenue, Washington, DC 20585) (tele: 202 586 3070) (Fax: 202 586 1180) (e-mail:Christopher.bordeaux@ee.doe.gov).